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EXAMINER	
DUNN, DARRIN D	

ART UNIT	PAPER NUMBER
2121	

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/694,063

Applicant(s)

QI ET AL.

Examiner

Darrin Dunn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is responsive to the communication filed on 09/06/2007.
2. Claims 1-30 have been presented for examination.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Pudipeddi et al. (USPN 6993603).
5. As per claim 1, Pudipeddi et al. teaches an apparatus ([FIG 1,2]) comprising:  
a filter manager ([FIG 4 - 212] to build a filter chain (FIG. 4- 406) corresponding to a wireless medium ([Col. 5, lines 5-18, 51-57] e.g., wireless media).  
a filter chain – (FIG. 4- 406 (sequence of ABA'CE)) to process the wireless medium ([Col. 9, lines 42-52], [FIG 4 – 406] e.g., per-volume ordered list c: /d: – 406 (filter chain).  
Processing files in accordance with the filter chains employs processing communication media.)
6. As per claim 2, Pudipeddi et al. teaches an apparatus as defined in claim 1, wherein the filter chain comprises a plurality of filter drivers – A,B,A',C,E ([FIG 4-406]

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7. As per claim 3, Pudipeddi et al. teaches an apparatus as defined in claim 2, wherein filter drivers implement media access control primitives – callback mechanism [FIG 4- 412], [Col. 9, lines 47-57] )
8. As per claim 4, Pudipeddi et al. teaches the apparatus defined in claim 1, wherein the filter chain comprises a filter driver to implement an encryption/decryption function for the wireless medium ([Col. 8, lines 30-33]).
9. As per claim 5, Pudipeddi et al. teaches the apparatus defined in claim 1, wherein the filter chain comprises a filter driver to implement a fragmentation/assembly function – splitting data- for the wireless medium – ([Col. 15, lines 59-60]).
10. As per claim 6 Pudipeddi et al. teaches an apparatus as defined in claims 2, wherein the filter chain is operable in a run mode – registering for read/writes ([Col. 8, line 30]), a stop mode – but not for others ([Col. 8, line32]), and a pause mode – registrations which they “may be interested” (Col. 8, line 27).
11. As per claim 7, Pudipeddi et al. teaches the apparatus as defined in claim 2 where the filter manager is operable to dynamically remove filter drivers from – dynamic detachment ([Col. 7, lines 67] e.g., filter manager is employed in a model where the model provides for dynamic filter detachment, [Col. 8, lines 47-50) and insert filter drivers – dynamic registration ([Col. 9, line 56]) into, the filter chain.
12. As per claim 8, Pudipeddi et al. teaches the apparatus as defined in claim 7, wherein the filter drivers implement media access control primitives -callback mechanism [FIG 4- 412], [Col. 9, lines 47-57]).

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13. As per claim 9, Pudipeddi et al. teaches an apparatus as defined in claim 7, wherein the filter chain is operable in a run mode – registering for read/writes ([Col. 8, line 30]), a stop mode – but not for others ([Col. 8, line 32]), and a pause mode – registrations which they “may be interested” (Col. 8, line 27).

*Claim Rejections - 35 USC § 103*

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pudipeddi et al. (USPN 6993603).

17. As per claim 10, Pudipeddi et al. teaches an apparatus and machine readable storage ([Col. 5, 50-55], [FIG 1]) comprising:

a first filter chain – ([FIG 4 – 406 (ABA'CE)] , a second filter chain – ([FIG 4 –406 (ABCD)]), and a filter manager ([FIG 2-212]) to build the first filter chain and to build the second filter chain ([Col. 9, lines 45-50]). Pudipeddi et al. also teaches a first wireless medium – RF (Col. 5, line 15) and a second wireless medium – acoustic (Col. 5, line 15).

However, Pudipeddi et al. does not expressly disclose that each respective filter chain corresponds to a first and second wireless medium. Pudipeddi et al. does teach that read requests for files are carried out in accordance with filter instances ([Col. 9, line 49-54]), and in addition it is taught that information delivery media (files) may be embodied as part of the communication media. Therefore, it would have been obvious at the time the invention was made as to embody information delivery media (files) in one or more form of wireless mediums (RF, infrared, and other wireless media). In effect, a filter chain may process a file (read requests for a file on volume c: implementing a first chain), where this processing may correspond to respective (first and/or second) wireless media.

18. As per claim 11, Pudipeddi et al., as modified, teaches an apparatus as defined in claim 1, further comprising a device driver –I/O manager to operate a hardware device ([FIG 2- 206], [Col. 16, line 39-45]).

19. As per claim 12, Pudipeddi et al., as modified, teaches an apparatus as defined in claim 11, wherein operation of the device driver is substantially restricted to implementation of the hardware interface to the hardware device – callback data ([Col. 16, line 39] and control of hardware device operation – normalized parameters specialized to filter uses ([Col. 16, line 44]).

20. As per claim 13, Pudipeddi et al, as modified, teaches an apparatus as defined in claim 10, wherein the first filter chain – ([FIG 4 – 406] – sequence corresponding to c:) comprises a

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first plurality of filter drivers –ABA'CE ([FIG. 4-406] to process the first wireless medium and the second filter chain –(FIG 4-406 – sequence corresponding to d: ) comprising a plurality of filter drivers –ABCD ([FIG 4-406]) to process the second wireless medium.

21. As per claim 14, Pudipeddi et al., as modified, teaches the apparatus as defined in claim 13, wherein the first plurality of filter drivers (FIG 4. – 406) implement media access control primitives –callback mechanism ([FIG. 4-412, 410], [Col. 9, lines 42-57]) corresponding to the first wireless medium and the second plurality of filter drivers (FIG 4-406) implement media access control primitives – (FIG. 4 -412,410 corresponding to the second wireless medium.

Note: since elements are shared in common with each respective filter chain, it is interpreted that identical functionality, whether encryption or fragmentation, is duplicated.

22. As per claim 15, Pudipeddi et al., as modified, teaches the apparatus as defined in claim 14, wherein the first plurality of filter drivers comprises a filter driver to implement encryption/decryption function for the first wireless medium ([Col 8, lines 30-33]) and the second plurality of filter drivers comprises a filter driver to implement encryption /decryption for the second wireless medium ([Col. 8, lines 30-33]).

23. As per claim 16, Pudipeddi et al., as modified, teaches an apparatus as defined in claim 14, wherein the first chain of filter drivers comprises a filter driver to implement fragmentation/assembling function ([Col. 15, lines 59-60 –splitting data]) for the first wireless medium and the second chain of filter drivers comprises a filter driver to implement fragmentation/assembling for the second wireless medium ([Col. 15, lines 59-60]).

24. As per claim 17, Pudipeddi et al., as modified teaches an apparatus as defined in claim 13, wherein the filter chain is operable in a run mode – registering for read/writes ([Col. 8, line

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30]), a stop mode – but not for others ([Col. 8, line32]), and a pause mode – registrations which they “may be interested” (Col. 8, line 27).

25. Claims 18-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pudipeddi et al. (USPN 6993603) in view of Agata et al. (USPN 6766402).

26. As per claims 18, 24, 27, and 28, Pudipeddi et al, teaches the system comprising:  
a media access control driver – 100 ([FIG 1]) comprising:  
a first filter chain – ([FIG 4 – 406 (ABA’CE)]) to process a first wireless medium; and  
a second filter chain – ([FIG 4 –406 (ABCD)]) to process a second wireless medium;  
a filter manager ([FIG 2-212]) to build the first filter chain and to build the second filter chain ([Col. 9, lines 45-50]).

However, Pudipeddi et al., as modified, does not teach an antenna coupled to the media access control driver – 100. Agata et al. teaches an antenna installed on a computer as to communicate with the LAN (ABSTRACT).

Therefore, at the time the invention was made one of ordinary skill in the art would have motivation to modify Pudipeddi et al. to include an antenna to communicate with the LAN – 171 (FIG 1) as taught by Pudipeddi et al. Since Pudipeddi may be implemented on various computing hardware and in light of user mobility requirements, it would have been obvious to have coupled an antenna to the system in Pudipeddi et al.

27. As per claim 19, Pudipeddi et al, as modified, teaches the system as defined in claim 18, further comprising a device driver wherein operation of the device driver is substantially restricted to implementation of the hardware interface to the hardware device – callback data



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([Col. 16, line 39] and control of hardware device operation – normalized parameters specialized to filter uses ([Col. 16, line 44]).

28. As per claims 20 and 25, Pudipeddi et al., as modified, teaches the system as defined in claim 18, wherein the first filter chain – ([FIG 4 – 406] – sequence corresponding to c:) comprises a first plurality of filter drivers –ABA’CE ([FIG. 4-406]) to process the first wireless medium and the second filter chain –(FIG 4-406 – sequence corresponding to d: ) comprising a plurality of filter drivers –ABCD ([FIG 4-406]) to process the second wireless medium.

29. As per claims 21 and 29, Pudipeddi et al., as modified, teaches the system as defined in claim 20, wherein the first plurality of filter drivers (FIG 4. – 406) implement media access control primitives –callback mechanism ([FIG. 4-412, 410], [Col. 9, lines 42-57]) corresponding to the first wireless medium and the second plurality of filter drivers (FIG 4-406) implement media access control primitives – (FIG. 4 -412,410 corresponding to the second wireless medium. Note: since elements are shared in common with each respective filter chain, it is interpreted that identical functionality, whether encryption or fragmentation, is duplicated.

30. As per claim 22, Pudipeddi et al., as modified, teaches the system as defined in claim 21, wherein the filter chains are operable in a run mode – registering for read/writes ([Col. 8, line 30]), a stop mode – but not for others ([Col. 8, line 32]), and a pause mode – registrations which they “may be interested” (Col. 8, line 27).

31. As per claims 23,26, and 30, Pudipeddi et al., as modified, teaches the system as defined in claim 22, wherein the filter manager is operable to dynamically remove filter drivers from – dynamic detachment ([Col. 7, lines 67] e.g., filter manager is employed in a model where the

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model provides for dynamic filter detachment, [Col. 8, lines 47-50) and insert filter drivers – dynamic registration ([Col. 9, line 56]) into, the filter chain.

***Response to Amendment***

- 32. The objection to FIG 2 has been withdrawn.
- 33. The objection to claim 28 has been withdrawn.
- 34. The objection to the specification, [0026], has been withdrawn.

***Response to Arguments***

- 35. Applicant's arguments filed 09/06/2007 have been fully considered but they are not persuasive.

With regard to applicant's statement that the cited reference is not relevant to building a filter chain via implementing a filter manager, examiner respectfully disagrees. Pudipeddi et al. teaches building a filter chain – 282a- 282e (FIG 2) via implementing a filter manager – 212 (COL 8 lines 22-25 e.g., it is interpreted that the term 'build' corresponds to either forming or developing a system. In the instant case, it is interpreted that the registration mechanism in the filter manager provides a means to form a filter chain upon registration of the filter drivers. The addition of filter drivers results in the formation of a chain)

With regard to the statement that there is "no filter chain corresponding to a wireless medium," examiner respectfully disagrees. The term 'corresponding' is broadly interpreted as an association. The implementation of a filter manager using wireless communication media qualifies as an association. COL 5 lines 12-15).

*Conclusion*

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darrin Dunn whose telephone number is (571) 270-1645. The examiner can normally be reached on EST:M-R(8:00-5:00) 9/5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DD  
09/25/2007



Anthony Knight  
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Art Unit 2121